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ATTORNEYS AT LAW August 26, 2009 TO Hicham Foud NAME 1940 DUKE STREET 571-270-2463 ALEXANDRIA, VIRGINIA 22314 U.S. PTO FAX# COMPANY/FIRM (703) 413-3000 (703) 413-2220 FACSIMILE CONFIRM FAX: YES NO NUMBER OF PAGES INCLUDING COVER: OBLONPAT@OBLON.COM 282723US8X Pranay Pattani FROM PATENT, TRADEMARK AND COPYRIGHT LAW AND RELATED FEDERAL AND ITC LITIGATION OUR REFERENCE NAME (703) 412-4533 10/656,625 WWW.OBLON.COM YOUR REFERENCE DIRECT PHONE #

MESSAGE

Agenda for personal interview scheduled August 27, 2009 at 10:00 AM.

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DOCKET NO: 282723US8X

## IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :

FRANK DAWIDOWSKY, ET AL. : EXAMINER: FOUD, H.

SERIAL NO: 10/656,625 :

FILED: SEPTEMBER 4, 2003 : GROUP ART UNIT: 2419

FOR: DYNAMIC BANDWIDTH ALLOCATION FOR VARIABLE BIT

RATE STREAMING DATA

#### INTERVIEW AGENDA

Dear Examiner Foud:

Attached is an agenda for the phone interview scheduled August 27, 2009 at 10:00 am. Should you have any questions prior to the interview, please call me at (703) 412-4533.

Pranay Pattani

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#### Proposed Amendments to the Claims as follows:

1 (Proposed) A method to allocate bandwidth, which method is implemented at a central controller of an ad-hoc network, comprising:

allocating, at the central controller, a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network, and the predetermined amount of bandwidth is allocated based on a fixed capacity allocation;

freeing, at the central controller, a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said certain amount of freed bandwidth being a difference between the allocated predetermined amount of bandwidth and an indicated needed amount of bandwidth indicated by said owner, wherein said indicated needed amount of bandwidth does not exceed said predetermined amount of bandwidth; and

when said owner indicates a new needed amount of bandwidth greater than said indicated needed amount, immediately returning as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said owner.

2. (Proposed-Previously Presented) The method according to claim 1, further comprising:

allocating some or all of said certain amount of freed bandwidth to a connection without quality or service requirements, the connection being a connection of the ad-hoc network.

3. (Proposed-Previously Presented) The method according to claim 1,

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wherein said requesting terminal is operated by reserving a predetermined amount of bandwidth for providing a certain quality of service for said connection, and said method further comprises:

determining a filling status of a transmit queue which indicates how much sending data is in the transmit queue,

determining a needed amount of bandwidth as bandwidth needed in a next transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding said predetermined amount of bandwidth, and indicating said needed amount of bandwidth to said central controller.

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#### POINTS TO DISCUSS

1. As to Claim 1, the terminal (owner) determines and indicates the needed amount of bandwidth to the central controller.

Claim 1 recites in part:

allocating, at the central controller, a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network, and the predetermined amount of bandwidth is allocated based on a fixed capacity allocation;

freeing, at the central controller, a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said certain amount of freed bandwidth being a difference between the allocated predetermined amount of bandwidth and an indicated needed amount of bandwidth indicated by said owner, wherein said indicated needed amount of bandwidth does not exceed said predetermined amount of bandwidth; and

when said owner indicates a new needed amount of bandwidth greater than said indicated needed amount, immediately returning as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said owner.

Therefore, as recited in Claim 1, the needed amount of bandwidth, which is freed at the central controller, is indicated by the owner (terminal) of the certain connection to the central controller.

The Office Action acknowledges that <u>Gorsuch</u> fails to disclose the above features.<sup>1</sup>
Rather, the Office Action relies Fig. 4B, steps 406 and 408, of <u>Lodha</u> for such teachings.

However, <u>Lodha</u> describes that a scheduler (i.e., a central controller) runs a scheduling algorithm to determine whether or not a first queue has consumed its allocated bandwidth.<sup>2</sup> If it is determined that the first queue does not consume all of its allocated bandwidth, then the scheduling algorithm identifies a second queue which is permitted to use

<sup>&</sup>lt;sup>1</sup> See Office Action dated June 11, 2009, page 3.

<sup>&</sup>lt;sup>2</sup> See Lodha, Fig. 3 and paragraphs [0019] and [0025]-[0028].

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the unconsumed bandwidth of the first queue.3 Further, Lodha describes that the scheduler determines whether or not the second queue is permitted to use the unconsumed bandwidth of the first queue, and if it is determined that the second queue is permitted to do so, the scheduler allows the second queue to forward packets using the unconsumed bandwidth of the first queue.4

Therefore, in Lodha, the freeing of a certain amount of freed bandwidth (i.e., the needed amount of bandwidth) at the scheduler is determined and indicated by the scheduler, and not by the queues.

- 2. Discuss inherency in returning freed bandwidth, as asserted by the Office Action on page 4.
- Claim 2 -- Two classes of connections.
- 4. Claim 3 -- Determining needed amount of bandwidth carried out in the terminal, and this needed amount of bandwidth is indicated by the terminal to the central controller.

 $<sup>^3</sup>$  See <u>Lodha,</u> Fig. 3 and paragraphs [0019] and [0025]-[0028].  $^4$  <u>Id.</u> at paragraph [0028].